

WHAT IS CLAIMED IS:

1. A method of passively loading an endoskeletal animal's body to increase gravity and mass, comprising the steps of:
 - a. placing a weight at a midjoint area of an appendage of the animal; and
 - b. securing the weight.
2. The method of claim 1 wherein the weight has a mass of greater than one gram per cubic centimeter.
3. The method of claim 2 wherein the weight is attached to a garment.
4. The method of claim 3 wherein the weight is attached to the garment by being inserted into a pocket in the garment.
5. The method of claim 4 wherein the pocket is circumferentially disposed on the garment.
6. The method of claim 2 wherein the weight is encapsulated in an impervious biocompatible material.
7. The method of claim 6 wherein the weight is surgically implanted under the skin and over the muscle tissue of an animal.
8. The method of claim 2 wherein the weight comprises:
 - a. a flexible substrate;
 - b. at least one sub-weight; and
 - c. encapsulation containing the at least one sub-weight and attached to the flexible substrate.

9. A method of passively loading an endoskeletal animal's body to increase gravity and mass, comprising the steps of:
- a. determining a midjoint location of an appendage where a weight is required to treat the animal;
 - 5 b. determining a mass of the weight required to treat the animal;
 - c. determining a length of time necessary for treatment;
 - d. placing the weight at a midjoint area of an appendage of the animal; and
 - e. securing the weight.
- 10 10. The method of claim 9 wherein the weight has a mass of greater than one gram per cubic centimeter.
11. The method of claim 10 wherein the weight is attached to a garment.
- 15 12. The method of claim 11 wherein the weight is attached to the garment by being inserted into a pocket in the garment.
13. The method of claim 12 wherein the pocket is circumferentially disposed on the garment.
- 20 14. The method of claim 10 wherein the weight is encapsulated in an impervious biocompatible material.
15. The method of claim 14 wherein the weight is surgically implanted under the skin and over the muscle tissue of an animal.
- 25 16. The method of claim 9 wherein the weight comprises:
- a. a flexible substrate;
 - b. at least one sub-weight; and
 - 30 c. encapsulation containing the at least one sub-weight and attached to the flexible substrate.

17. A method of externally passively loading an endoskeletal animal's body to increase gravity and mass, comprising the steps of:
- 5 a. determining a midjoint location on an appendage where a weight is required to treat the animal;
- b. determining a mass of the weight required to treat the animal;
- c. determining a period of time necessary for treatment;
- d. providing a garment having a pocket at the determined midjoint location;
- e. inserting the determined weight into the pocket;
- 10 f. securing the weight in the weight receiving means; and
- g. donning the garment by the animal for the determined period.
18. The method of claim 17 wherein the pocket is circumferentially disposed on the garment.
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19. The method of claim 17 wherein the weight has a mass of greater than one gram per cubic centimeter.
20. A system for externally passively loading an animal's body, comprising:
- 20 a. a garment covering at least one midjoint area of an animal's appendage;
- b. at least one pocket incorporated into the at least one midjoint area for receiving a weight; and
- c. at least one weight inserted into the pocket.
- 25 21. The system of claim 20 wherein the weight has a mass of greater than one gram per cubic centimeter.
22. The system of claim 20 wherein the weight comprises:
- a. a flexible substrate;
- 30 b. at least one sub-weight; and

- c. encapsulation containing the at least one sub-weight and attached to the flexible substrate.

- 5 23. The system of claim 20 wherein the pocket is circumferentially disposed on the garment.

- 24. A method of internally passively loading an endoskeletal animal's body to increase body and mass, comprising the steps of:
 - 10 a. determining a midjoint location on an appendage where a weight is required to treat the animal;
 - b. determining and selecting a mass of the weight required to treat the animal;
 - c. determining a period of time necessary for treatment;
 - d. making an incision proximate the midjoint location;
 - 15 e. exposing the first layer of muscle;
 - f. inserting the weight around the muscle under the layers of skin and fascia;
 - g. suturing the weight at the site of insertion through grommets in the weight; and
 - h. closing the incision.
- 20 25. The method of claim 24 wherein the weight is circumferentially inserted around the muscle.

- 25 26. The method of claim 24 wherein the weight has a mass of greater than one gram per cubic centimeter.

- 27. The method of claim 26 wherein the weight comprises:
 - a. a flexible substrate;
 - b. at least one sub-weight; and
 - 30 c. encapsulation containing the at least one sub-weight and attached to the flexible substrate.

28. The method of claim 27 wherein the encapsulation is impenetrable.

29. A system for passively loading an animal's body, comprising:

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- a. a flexible substrate;
 - b. at least one sub-weight; and
 - c. encapsulation containing the at least one sub-weight and attached to the flexible substrate.

10 30. The system of claim 29 wherein the encapsulation contains a plurality of sub-weights.

31. The system of claim 30 wherein the plurality of sub-weights are loosely disposed within the encapsulation so as to be self-centering.

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32. The system of claim 29 wherein the flexible substrate is provided with at least one grommet.

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